

JUN 12 2006

Appl. No. 09/982,481  
Preliminary Amendment dated June 12, 2006  
Reply to final Office action of January 25, 2006

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

31.-43. (Canceled).

44. (New) A method to form a pixel bar chart, comprising:  
obtaining a set of records;  
assigning a pixel to each of said records so that every pixel in the chart is assigned to a record; and  
constructing the pixel bar chart by arranging the record-assigned pixels according to a first ordering attribute so that each record-assigned pixel is adjacent at least one other record-assigned pixel.

45. (New) The method of claim 44 further comprising, for each record-assigned pixel, assigning a selectable visual indicator to the record-assigned pixel based on an attribute value of each record so that some pixels have a different visual indicator than other pixels.

46. (New) The method of claim 45 wherein the visual indicator comprises color.

47. (New) The method of claim 44 wherein said records are obtained from a multidimensional data set in which each record comprises a plurality of attributes, and said method further comprises assigning a selectable visual indicator to each record-assigned pixel based on an attribute of each record so that some pixels have a different visual indicator than other pixels.

48. (New) The method of claim 44 wherein the pixel bar chart comprises a plurality of columns, each column comprising a plurality of pixels and having a

**Appl. No. 09/982,481  
Preliminary Amendment dated June 12, 2006  
Reply to final Office action of January 25, 2006**

width measured in terms of pixels, and the method further comprises causing the width of at least one column to be different than the width of at least one other column.

49. (New) The method of claim 44 further comprising sorting the records into groups according to a first dividing attribute and partitioning the sorted records of each group into sub-groups according to a second dividing attribute.

50. (New) A computer-readable medium having computer-readable program code embodied therein that is adapted to cause a computer to implement a method to form a pixel bar chart comprising a plurality of columns, each column having a plurality of pixels, the method comprising:

- obtaining a set of records;
- assigning a pixel to each of said records so that every pixel in the chart is assigned a record; and
- constructing the pixel bar chart by arranging the record-assigned pixels according to a first ordering attribute so that each record-assigned pixel is adjacent at least one other record-assigned pixel

51. (New) The computer-readable medium of claim 50 wherein the method further comprises assigning a selectable visual indicator to each record-assigned pixel based on a value of the associated record so that some pixels have a different visual indicator than other pixels.

52. (New) The computer-readable medium of claim 51 wherein the visual indicator comprises color.

53. (New) The computer-readable medium of claim 50 wherein said records are obtained from a multidimensional data set in which each record comprises a plurality of attributes, and said method further comprises assigning a selectable

**Appl. No. 09/982,481**  
**Preliminary Amendment dated June 12, 2006**  
**Reply to final Office action of January 25, 2006**

visual indicator to each record-assigned pixel based on an attribute of each record so that some pixels have a different visual indicator than other pixels.

54. (New) The computer-readable medium of claim 50 wherein the pixel bar chart comprises a plurality of columns, each column comprising a plurality of pixels and having a width measured in terms of pixels, and the method further comprises causing the width of at least one column to be different than the width of at least one other column.

55. (New) The computer-readable medium of claim 50 wherein the method further comprises sorting the records into groups according to a first dividing attribute and partitioning the sorted records of each group into sub-groups according to a second dividing attribute.

56. (New) A computer system, comprising:  
a bus;  
a display device coupled to said bus;  
a computer-readable memory coupled to said bus; and  
a processor coupled to said bus, said processor executes a method for constructing a pixel bar chart on the display device, said method comprising:  
obtaining a set of records;  
assigning a pixel to each of said records so that every pixel in the chart is assigned a record; and  
constructing the pixel bar chart by arranging the record-assigned pixels according to a first ordering attribute so that each record-assigned pixel is adjacent at least one other record-assigned pixel

57. (New) The computer system of claim 56 wherein the method further comprises assigning a selectable visual indicator to each record-assigned pixel

**Appl. No. 09/982,481**  
**Preliminary Amendment dated June 12, 2006**  
**Reply to final Office action of January 25, 2006**

based on a value of the associated record so that some pixels have a different visual indicator than other pixels.

58. (New) The computer system of claim 57 wherein the visual indicator comprises color.

59. (New) The computer system of claim 56 wherein said records are obtained from a multidimensional data set in which each record comprises a plurality of attributes, and said method further comprises assigning a selectable visual indicator to each record-assigned pixel based on an attribute of each record so that some pixels have a different visual indicator than other pixels.

60. (New) The computer system of claim 56 wherein the pixel bar chart comprises a plurality of columns, each column comprising a plurality of pixels and having a width measured in terms of pixels, and the method further comprises causing the width of at least one column to be different than the width of at least one other column.

61. (New) The computer system of claim 56 wherein the method further comprises sorting the records into groups according to a first dividing attribute and partitioning the sorted records of each group into sub-groups according to a second dividing attribute.

62. (New) A method to form a pixel bar chart, comprising:  
obtaining records from a multidimensional dataset, each record having a first dividing attribute, a second dividing attribute, and a coloring attribute;  
assigning a pixel to each of said records so that every pixel in the chart is assigned a record; and  
constructing the pixel bar chart by sorting the record-assigned pixels according to the first ordering attribute of each record to form

**Appl. No. 09/982,481**  
**Preliminary Amendment dated June 12, 2006**  
**Reply to final Office action of January 25, 2006**

groups of pixels, partitioning the records of each group according to a second dividing attribute of each record to form sub-groups, and applying a selectable color to each pixel based the coloring attribute of each record so that each record-assigned pixel is adjacent at least one other record-assigned pixel.